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|--|-----------|
| electrochemiluminescent same microparticle | 6 |

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US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

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| <u>L4</u> | electrochemiluminescent same microparticle | 6 | <u>L4</u> |
| <u>L3</u> | electrochemiluminescent same microparticle same core | 0 | <u>L3</u> |
| <u>L2</u> | 5679519.pn. | 1 | <u>L2</u> |
| <u>L1</u> | 6096500.pn. | 1 | <u>L1</u> |

END OF SEARCH HISTORY

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L4: Entry 1 of 6

File: USPT

Nov 20, 2001

US-PAT-NO: 6319670

DOCUMENT-IDENTIFIER: US 6319670 B1

TITLE: Methods and apparatus for improved luminescence assays using microparticles

DATE-ISSUED: November 20, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------------|--------------|-------|----------|---------|
| Sigal; George B. | Rockville | MD | | |
| Wohlstadter; Jacob N. | Rockville | MD | | |
| Gudibande; Satyanarayana | Gaithersburg | MD | | |
| Martin; Mark T. | Rockville | MD | | |
| Wilbur; James L. | Germantown | MD | | |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|---------------------------|--------------|-------|----------|---------|-----------|
| Meso Scale Technology LLP | Gaithersburg | MD | | | 02 |

APPL-NO: 8/ 998137

DATE FILED: December 23, 1997

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATION This application is a continuation-in-part of U.S. application Ser. No. 08/954,355 filed Oct. 20, 1997, incorporated herein by reference, which is a continuation of U.S. application Ser. No. 08/437,348, filed May 9, 1995 (now U.S. No. 5,679,519), incorporated herein by reference.

INT-CL: [7] C12 Q 1/68

US-CL-ISSUED: 435/6; 436/534

US-CL-CURRENT: 435/6; 436/534

FIELD-OF-SEARCH: 435/6, 436/534, 436/548, 436/808, 536/26.6, 536/24.3, 536/24.32, 536/24.33

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|----------------|--------------|---------------|-------|
| <u>5252459</u> | October 1993 | Tarcha et al. | 435/6 |
| <u>5679519</u> | October 1997 | Oprandy | 435/6 |

ART-UNIT: 166

PRIMARY-EXAMINER: Houtteman; Scott W.

ATTY-AGENT-FIRM: Kramer Levin Naftalis & Frankel LLP Evans, Esq.; Barry

ABSTRACT:

The present invention relates to methods, reagents and compositions, for conducting electrochemiluminescence binding assays which improve one or more characteristics of the assay or the instruments used to conduct the assay. The method is achieved using microparticles that include electrically conductive material. The electrically conductive material has one or more copies of an assay ligand immobilized on its outer surface and a plurality of electrochemiluminescent moieties immobilized on its outer surface. The assay ligand may be linked to the electrochemiluminescent moiety.

44 Claims, 5 Drawing figures

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|--------|------|-----------|-------|
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☐ 2. Document ID: US 6187270 B1

L4: Entry 2 of 6

File: USPT

Feb 13, 2001

US-PAT-NO: 6187270

DOCUMENT-IDENTIFIER: US 6187270 B1

TITLE: Device and method for the separation of magnetic microparticles

DATE-ISSUED: February 13, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------|------------|-------|----------|---------|
| Schmitt; Urban | Oberhausen | | | DEX |
| Maurer; Eberhard | Weilheim | | | DEX |
| Pappert; Gunter | Starnberg | | | DEX |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|------------------------|----------|-------|----------|---------|-----------|
| Roche Diagnostics GmbH | Mannheim | | | DEX | 03 |

APPL-NO: 8/ 499078

DATE FILED: July 6, 1995

FOREIGN-APPL-PRIORITY-DATA:

| COUNTRY | APPL-NO | APPL-DATE |
|---------|-----------|--------------|
| DE | 44 23 878 | July 7, 1994 |

INT-CL: [7] G01 N 35/10, G01 N 33/543, B01 L 3/02

US-CL-ISSUED: 422/101; 422/63, 422/100, 436/43, 436/54, 436/174, 436/177, 436/180, 436/807, 210/222, 210/695

US-CL-CURRENT: 422/101; 210/222, 210/695, 422/100, 422/63, 436/174, 436/177, 436/180, 436/43, 436/54, 436/807

FIELD-OF-SEARCH: 422/63-67, 422/100, 422/101, 436/43, 436/49, 436/47, 436/54, 436/174, 436/177, 436/180, 436/807, 436/809, 436/810, 210/695, 210/222, 210/223

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|----------------|---------------|-------------------|-----------|
| <u>3985649</u> | October 1976 | Eddelman | 259/1R |
| <u>4292920</u> | October 1981 | Smith et al. | |
| <u>4526046</u> | July 1985 | Oberliet al. | 73/864.16 |
| <u>5013529</u> | May 1991 | Itoh | 422/100 |
| <u>5160378</u> | November 1992 | Tuunanen et al. | 134/25.1 |
| <u>5171537</u> | December 1992 | Wainwright et al. | 422/100 |
| <u>5183638</u> | February 1993 | Wakatake | 422/64 |
| <u>5200084</u> | April 1993 | Liberti et al. | 210/695 |
| <u>5200151</u> | April 1993 | Long | 422/100 |
| <u>5647994</u> | July 1997 | Tuunanen et al. | 210/695 |
| <u>5702950</u> | December 1997 | Tajima | 439/49 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|---------------|---------|-------|
| 0 272 915 A2 | June 1988 | EPX | |
| 0 339 980 A1 | November 1989 | EPX | |
| 0 687 501 A2 | December 1995 | EPX | |
| 60-159651 | August 1985 | JPX | |
| 1-321363 | December 1989 | JPX | |
| 4-194752 | July 1992 | JPX | |
| WO 93/13400 | July 1993 | WOX | |
| WO 95/00247 | January 1995 | WOX | |

ART-UNIT: 173

PRIMARY-EXAMINER: Le; Long V.

ATTY-AGENT-FIRM: Arent Fox Kintner Plotkin & Kahn PLLC

ABSTRACT:

The invention addresses a device for separating magnetic microparticles in a liquid with the aid of a magnetic field. During the separation procedure, the liquid containing the microparticles is located in the tip of the pipette. Moreover, the invention also addresses a method for separating microparticles, and a method for washing microparticles.

13 Claims, 8 Drawing figures

| | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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| RWMC | Draw Desc | Image |
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☐ 3. Document ID: US 6133043 A

L4: Entry 3 of 6

File: USPT

Oct 17, 2000

US-PAT-NO: 6133043

DOCUMENT-IDENTIFIER: US 6133043 A

TITLE: Magnetic particle based electrochemiluminescent detection apparatus and method

DATE-ISSUED: October 17, 2000

INVENTOR- INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|---------------|-------|----------|---------|
| Talley; David B. | Olney | MD | | |
| Leland; Jonathan K. | Silver Spring | MD | | |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|--------------------------|--------------|-------|----------|---------|-----------|
| IGEN International, Inc. | Gaithersburg | MD | | | 02 |

APPL-NO: 9/ 066704

DATE FILED: April 27, 1998

PARENT-CASE:

This application is a continuation of application Ser. No. 08/339,237, filed Nov. 10, 1994, now U.S. Pat. No. 5,744,367, issued Apr. 28, 1998, which is incorporated herein by reference.

INT-CL: [7] G01 N 21/76

US-CL-ISSUED: 436/172; 422/52, 250/361C, 436/526

US-CL-CURRENT: 436/172; 250/361C, 422/52, 436/526

FIELD-OF-SEARCH: 422/52, 436/526, 436/172, 250/361C

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|----------------|----------------|------------------|-----------|
| <u>4554088</u> | November 1985 | Whitehead et al. | 252/62.54 |
| <u>4628037</u> | December 1986 | Chagnon et al. | 436/526 |
| <u>4695392</u> | September 1987 | Whitehead et al. | 252/62.54 |
| <u>4695393</u> | September 1987 | Whitehead et al. | 252/62.54 |
| <u>4698302</u> | October 1987 | Whitehead et al. | 435/94 |
| <u>5744367</u> | April 1998 | Talley et al. | 436/172 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|-------------|---------|-------|
| 0180384 | May 1986 | EPX | |
| 86/02734 | May 1986 | WOX | |
| 89/04302 | May 1989 | WOX | |
| 90/05301 | May 1990 | WOX | |
| WO 92/14139 | August 1992 | WOX | |
| 92/14138 | August 1992 | WOX | |

OTHER PUBLICATIONS

Kenten et al., Clinical Chemistry, vol. 38, No. 6, Jun. 1992 (pp. 873-879).
Blackburn et al., Clinical Chemistry, "Electrochemiluminescence Detection for Immunoassays", vol. 37, No. 8, 1991. No month available.
Massay, Richard, Biomedical Products, "Electrochemiluminescence: A Novel Detection System . . . ", Oct. 1992.
Kenten, J.H. et al., 37, Clin. Chem., p. 1626-1632 (1991) No month available.
Kenten, J.H. et al. 6, Mol. Cell. Probes, p. 495-503 (1992) No month available.
DiCesare, J. et al., 15, Biotechniques, p. 152 (Jul., 1993).

ART-UNIT: 173

PRIMARY-EXAMINER: Warden; Jill
ASSISTANT-EXAMINER: Starsiak, Jr.; John S.
ATTY-AGENT-FIRM: Whitman Breed Abbott & Morgan LLP

ABSTRACT:

A method and apparatus for measuring electrochemiluminescence from a sample composition are described wherein magnetically responsive electrochemiluminescent active species are captured on the electrode with the aid of a capture magnet having a configuration such that the magnetic flux lines (or the magnetic field gradient) of at least one magnetic field source therein are compressed and/or dispersed. This capture magnet improves the distribution of the magnetically responsive electrochemiluminescent active species on the electrode surface and reduces interference with the photomultiplier tube, thereby enhancing the ECL signal and improving sensitivity. The improved capture and distribution also allows for shorter assay times.

15 Claims, 12 Drawing figures

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|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|

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| Keyword | Draw Desc | Image |
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☐ 4. Document ID: US 6132955 A

L4: Entry 4 of 6

File: USPT

Oct 17, 2000

US-PAT-NO: 6132955

DOCUMENT-IDENTIFIER: US 6132955 A

TITLE: Method for derivitizing electrodes and assay methods using such derivitized electrodes

DATE-ISSUED: October 17, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|---------------|-------|----------|---------|
| Talley; David | Olney | MD | | |
| Leland; Jonathan K. | Silver Spring | MD | | |
| Blackburn; Gary F. | Gaithersburg | MD | | |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|--------------------------|--------------|-------|----------|---------|-----------|
| IGEN International, Inc. | Gaithersburg | MD | | | 02 |

APPL-NO: 8/ 922761

DATE FILED: September 3, 1997

PARENT-CASE:

This application is a continuation of application Ser. No. 08/443,497, filed May 18, 1995, now abandoned.

INT-CL: [7] C12 Q 1/00

US-CL-ISSUED: 435/4; 435/5, 435/6, 435/7.1, 435/7.7, 435/817, 436/526, 436/518, 204/400, 204/403

US-CL-CURRENT: 435/4; 204/400, 205/777.5, 205/787, 205/794.5, 435/5, 435/6, 435/7.1, 435/7.7, 435/817, 436/518, 436/526

FIELD-OF-SEARCH: 204/400, 204/403, 435/4-6, 435/7.1, 435/7.7, 435/817, 436/526, 436/578

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|----------------|----------------|------------------|---------|
| <u>4554088</u> | November 1985 | Whitehead et al. | |
| <u>4628037</u> | December 1986 | Chagnon et al. | 436/526 |
| <u>4655885</u> | April 1987 | Hill et al. | 204/72 |
| <u>4695392</u> | September 1987 | Whitehead et al. | |
| <u>4695393</u> | September 1987 | Whitehead et al. | |
| <u>4698302</u> | October 1987 | Whitehead et al. | 435/94 |
| <u>4882057</u> | November 1989 | Broderick | 128/631 |
| <u>4945045</u> | July 1990 | Forrest et al. | 435/25 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|---------------|---------|-------|
| 0180384 | May 1986 | EPX | |
| 2105750 | March 1983 | GBX | |
| 86/02734 | May 1986 | WOX | |
| 87/00987 | February 1987 | WOX | |
| 88/03947 | June 1988 | WOX | |
| 89/04919 | June 1989 | WOX | |
| 05301 | May 1990 | WOX | |
| 00982 | February 1992 | WOX | |
| 92/14138 | August 1992 | WOX | |

OTHER PUBLICATIONS

Blackburn et al. "Electrochemiluminescence Detection for Development of Immunoassays and DNA Probe Assays for Clinical Diagnostics," 37, Clinical CHEMistry 1534-1539 (1991).

ART-UNIT: 162

PRIMARY-EXAMINER: Huff; Sheela

ATTY-AGENT-FIRM: Whitman Breed Abbott & Morgan LLP

ABSTRACT:

An electrode can be derivitized by contacting it with a derivitizing solution to make it more sensitive to a desired analyte signal as opposed to interfering signals in an assay. Particularly, in an electrochemiluminescence (ECL) immunoassay the working electrode can be derivitized to be more sensitive to desired analyte signals, as opposed to interfering non-bound conjugate or serum matrix signals.

22 Claims, 11 Drawing figures

| | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|

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| RMK | Draw Desc | Image |
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☐ 5. Document ID: US 5989463 A

L4: Entry 5 of 6

File: USPT

Nov 23, 1999

US-PAT-NO: 5989463

DOCUMENT-IDENTIFIER: US 5989463 A

TITLE: Methods for fabricating polymer-based controlled release devices

DATE-ISSUED: November 23, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|------------|-------|----------|---------|
| Tracy; Mark A. | Arlington | MA | | |
| Herberger; John D. | Moore Park | CA | | |
| Burke; Paul A. | Oxnard | CA | | |
| Herbert; Paul F. | Wayland | MA | | |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE | CODE |
|--|-----------|-------|----------|---------|------|------|
| Alkermes Controlled Therapeutics, Inc. | Cambridge | MA | | | | 02 |

APPL-NO: 8/ 935452

DATE FILED: September 24, 1997

INT-CL: [6] B01 J 13/02, B01 J 13/04, A61 K 9/22

US-CL-ISSUED: 264/4.1; 604/890.1, 424/484, 424/486, 424/489, 514/2, 514/21

US-CL-CURRENT: 264/4.1; 424/484, 424/486, 424/489, 514/2, 514/21, 604/890.1

FIELD-OF-SEARCH: 264/4.1, 604/890.1, 424/484, 424/486, 424/489, 514/2, 514/21

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|----------------|----------------|-------------------|------------|
| <u>3691090</u> | September 1972 | Kitajima et al. | 252/316 |
| <u>3737337</u> | June 1973 | Schnoring et al. | 117/100 |
| <u>3887699</u> | June 1975 | Yolles | 424/19 |
| <u>3891570</u> | June 1975 | Fukushima et al. | 252/316 |
| <u>4166800</u> | September 1979 | Fong | 252/316 |
| <u>4389330</u> | June 1983 | Tice et al. | 427/213.36 |
| <u>4530840</u> | July 1985 | Tice et al. | 514/179 |
| <u>4542025</u> | September 1985 | Tice et al. | 424/78 |
| <u>4675189</u> | June 1987 | Kent et al. | 424/490 |
| <u>4818542</u> | April 1989 | DeLuca et al. | 424/491 |
| <u>4835139</u> | May 1989 | Tice et al. | 514/15 |
| <u>4849228</u> | July 1989 | Yamamoto et al. | 424/457 |
| <u>4938763</u> | July 1990 | Dunn et al. | 604/891.1 |
| <u>5019400</u> | May 1991 | Gombotz et al. | 424/497 |
| <u>5192741</u> | March 1993 | Orsolini et al. | 514/4 |
| <u>5232707</u> | August 1993 | Lokensgard | 424/490 |
| <u>5401502</u> | March 1995 | Wunderlich et al. | 424/195.1 |
| <u>5478564</u> | December 1995 | Wantier et al. | 424/426 |
| <u>5540937</u> | July 1996 | Billot et al. | 424/489 |
| <u>5556642</u> | September 1996 | Kobayashi et al. | 424/502 |
| <u>5585460</u> | December 1996 | Yamada et al. | 528/491 |
| <u>5594091</u> | January 1997 | Igari et al. | 528/271 |
| <u>5609886</u> | March 1997 | Wantier et al. | 424/497 |
| <u>5650173</u> | July 1997 | Ramstack et al. | 424/489 |
| <u>5654010</u> | August 1997 | Johnson et al. | 424/502 |
| <u>5656297</u> | August 1997 | Bernstein et al. | 424/484 |
| <u>5667808</u> | September 1997 | Johnson et al. | 424/501 |
| <u>5674534</u> | October 1997 | Zale et al. | 424/501 |
| <u>5711968</u> | January 1998 | Tracy et al. | 424/487 |
| <u>5716644</u> | February 1998 | Zale et al. | 424/497 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|---------------|---------|-------|
| 0 190 833 A2 | August 1986 | EPX | |
| 0 537 559 A1 | April 1993 | EPX | |
| 0 556 917 A1 | August 1993 | EPX | |
| 0 586 838 A1 | March 1994 | EPX | |
| WO 89/03678 | May 1989 | WOX | |
| WO 89/05138 | June 1989 | WOX | |
| WO 90/13780 | November 1990 | WOX | |
| WO 90/13285 | November 1990 | WOX | |
| WO 93/07861 | April 1993 | WOX | |
| WO 95 29664 A1 | November 1995 | WOX | |
| WO 96 12478 A1 | May 1996 | WOX | |
| WO 96 19201 A1 | June 1996 | WOX | |
| WO 97 07788 A2 | March 1997 | WOX | |
| WO 97 42940 A1 | November 1997 | WOX | |

OTHER PUBLICATIONS

Sato, T. et al., "Porous Biodegradable Microspheres for Controlled Drug Delivery. I.

Assessment of Processing Conditions and Solvent Removal Techniques," Pharmaceutical Research, 5(1):21-29 (Jan. 1988).

ART-UNIT: 171

PRIMARY-EXAMINER: Nutter; Nathan M.

ATTY-AGENT-FIRM: Hamilton, Brook, Smith & Reynolds, P.C.

ABSTRACT:

The present invention relates to a polymer-based sustained release device, and methods of forming and using the device for the sustained release of an active agent. The improved method of the invention for forming a polymer-bases sustained release device comprises forming a polymer/active agent solution by mixing a polymer, a continuous phase, and an active agent. The continuous phase can comprise one or more polymer solvents, a polymer solvent/polymer non-solvent mixture, or a polymer solvent/active agent non-solvent mixture. When the continuous phase comprises a polymer solvent/active agent non-solvent, the active agent can also be present as a microparticulate rather than in solution. The continuous phase is then removed from the polymer/active agent solution, thereby forming a solid polymer/active agent matrix.

15 Claims, 3 Drawing figures

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|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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☐ 6. Document ID: US 5744367 A

L4: Entry 6 of 6

File: USPT

Apr 28, 1998

US-PAT-NO: 5744367

DOCUMENT-IDENTIFIER: US 5744367 A

TITLE: Magnetic particle based electrochemiluminescent detection apparatus and method

DATE-ISSUED: April 28, 1998

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|---------------|-------|----------|---------|
| Talley; David B. | Olney | MD | | |
| Leland; Jonathan K. | Silver Spring | MD | | |

ASSIGNEE-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|--------------------------|--------------|-------|----------|---------|-----------|
| IGEN International, Inc. | Gaithersburg | MD | | | 02 |

APPL-NO: 8/ 339237

DATE FILED: November 10, 1994

INT-CL: [6] G01 N 21/76

US-CL-ISSUED: 436/172; 250/361C, 422/52

US-CL-CURRENT: 436/172; 250/361C, 422/52

FIELD-OF-SEARCH: 250/361C, 422/52, 436/172

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

| PAT-NO | ISSUE-DATE | PATENTEE-NAME | US-CL |
|----------------|----------------|------------------|-----------|
| <u>4554088</u> | November 1985 | Whitehead et al. | 252/62.54 |
| <u>4628037</u> | December 1986 | Chagnon et al. | 436/526 |
| <u>4695392</u> | September 1987 | Whitehead et al. | 252/62.54 |
| <u>4695393</u> | September 1987 | Whitehead et al. | 252/62.54 |
| <u>4698302</u> | October 1987 | Whitehead et al. | 435/94 |
| <u>5466417</u> | November 1995 | Ghaed et al. | 422/52 |

FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|--------------|---------|-------|
| 0 180 384 | May 1986 | EPX | |
| 19501916 | July 1995 | DEX | |
| 86/02734 | May 1986 | WOX | |
| 89/04302 | May 1989 | WOX | |
| 90/05301 | May 1990 | WOX | |
| 9214139 | August 1992 | WOX | |
| 9214138 | August 1992 | WOX | |
| 92/14138 | August 1992 | WOX | |
| 9301308 | January 1993 | WOX | |

OTHER PUBLICATIONS

Kenten et al., Clinical Chemistry, vol. 38, No. 6, Jun. 1992 pp. 873-879.
Blackburn et al., Clinical Chemistry, Electrochemiluminescence Detection for Immunoassays, vol. 37, No. 8, Sep. 1991, pp. 1534-1539.
Massay, Richard, Biomedical Products, "Electrochemiluminescence: A novel detection system . . . ", Oct., 1992.
Kenten, J.H. et al., 37, Clin. Chem., pp. 1626-1632 (Jun. 1991).
Kenten, J.H. et al., 6, Mol. Cell. Probes, pp. 495-503 (1992).
DiCesare, J. et al., 15, Biotechniques, p. 152 (Jul. 1993).

ART-UNIT: 112

PRIMARY-EXAMINER: Gorgos; Kathryn L.

ASSISTANT-EXAMINER: Starsiak, Jr.; John S.

ATTY-AGENT-FIRM: Whitman Breed Abbott & Morgan LLP Evans, Esq.; Barry

ABSTRACT:

A method and apparatus for measuring electrochemiluminescence from a sample composition are described wherein magnetically responsive electrochemiluminescent active species are captured on the electrode with the aid of a capture magnet having a configuration such that the magnetic flux lines (or the magnetic field gradient) of at least one magnetic field source therein are compressed and/or dispersed. This capture magnet improves the distribution of the magnetically responsive electrochemiluminescent active species on the electrode surface and reduces interference with the photomultiplier tube, thereby enhancing the ECL signal and improving sensitivity. The improved capture and distribution also allows for shorter assay times.

23 Claims, 12 Drawing figures

| | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
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